

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1.(currently amended) An ultrasonic surgical instrument comprising:
~~a housing~~ an ultrasonic transducer configured for generating ultrasonic energy and having a proximal end and a distal end;
~~an outer tube having a proximal end joined to the housing distal end, and a distal end extending distally from the housing distal end;~~
an ultrasonic waveguide for transmitting ultrasonic energy and connected to the distal end of the ultrasonic transducer ~~positioned within the outer tube~~, and having an ultrasonically actuated blade defining an asymmetric portion and positioned at the distal end of the waveguide ~~and extending distally from the outer tube distal end;~~ and a lumen ~~positioned within the outer tubing and~~ having an end positioned in an overlapping relationship with at least a portion of the asymmetric portion of the blade.
- 2.(original) The ultrasonic surgical instrument of claim 1, wherein the lumen provides suction to remove fluid, debris, or vapors from a surgical field.
3. (original) The ultrasonic surgical instrument of claim 1, wherein the lumen provides irrigation fluid to a surgical site.
- 4.(canceled)
5. (currently amended) The ultrasonic surgical instrument of claim 1, wherein the blade is designed to vibrate in a longitudinal ~~mode~~ motion coupled with either a transverse or torsional motion ~~mode~~.
6. (previously presented) The ultrasonic surgical instrument of claim 5, wherein the lumen is fixed in a position adjacent to a transverse or torsional node.
7. (currently amended) The ultrasonic surgical instrument of claim ~~[[4]]~~ 5, wherein the lumen is movable to a position adjacent to a transverse or torsional node.

8. (original) The ultrasonic surgical instrument of claim 6, wherein the transverse or torsional node facilitate debris or fluid removal in conjunction with suction.

9.(canceled)

10. (original) The ultrasonic surgical instrument of claim 1, wherein the lumen is movable radially with respect to the blade.

11. (original) The ultrasonic surgical instrument of claim 1, wherein the proximal end of the surgical instrument incorporates controls for suction and or irrigation functionality.

12. (original) The ultrasonic surgical instrument of claim 1, wherein the blade defines a channel.

13. (original) The ultrasonic surgical instrument of claim 12, wherein the channel directs debris and/or fluids toward the lumen for removal with suction.

14. (original) The ultrasonic surgical instrument of claim 12, wherein the channel directs irrigation fluid from the lumen to the surgical site.

15.(canceled)

16.(currently amended) An ultrasonic surgical instrument comprising:

a housing

an ultrasonic transducer contained at least in part within the housing and configured for generating ultrasonic energy and having a proximal end and a distal end;

an outer tube having a proximal end joined to the housing, and a distal end;

an ultrasonic waveguide for transmitting ultrasonic energy and connected to the distal end of the ultrasonic transducer and positioned within the outer tubing, and having

an ultrasonically actuated blade defining a portion symmetric in at least one plane positioned at the distal end of the waveguide; and

at least one lumen positioned within the outer tube and in an overlapping relationship with symmetric portion of the blade.

17. (original) The ultrasonic surgical instrument of claim 16, wherein the lumen provides suction to remove fluid, debris, or vapors from a surgical field.

18. (original) The ultrasonic surgical instrument of claim 16, wherein the lumen provides irrigation fluid to a surgical site.

19.(previously presented) The ultrasonic surgical instrument of claim 16, wherein the lumen is moveable.

20. (currently amended) The ultrasonic surgical instrument of claim 16, wherein the blade is designed to vibrate in a longitudinal ~~mode~~ motion coupled with either a transverse or torsional motion ~~mode~~.

21. (currently amended) An ultrasonic surgical instrument comprising:
an ultrasonic transducer contained at least in part within the housing and configured for generating ultrasonic energy and having a proximal end and a distal end;
an outer tube;
an ultrasonic waveguide for transmitting ultrasonic energy and connected to the distal end of the ultrasonic transducer and positioned within the outer tube, and having
an ultrasonically actuated blade defining an asymmetric portion and positioned at the distal end of the waveguide and extending distally from the outer tube distal end; and
a lumen positioned within the outer tubing and having an end positioned in an overlapping relationship with at least a portion of the asymmetric portion of the blade.